



ATTORNEY DOCKET NO. Q63677  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Naoto AKIYAMA, et al.

Appln. No.: 09/813,978

Group Art Unit: 3762

Confirmation No.: 6052

Examiner: NOT YET ASSIGNED

Filed: March 22, 2001

For: SEMICONDUCTOR SWITCH DRIVING CIRCUIT

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

**IN THE SPECIFICATION:**

**Page 20, please delete the fourth full paragraph, and replace with the following new paragraph:**

a-16: Electromotive force  $V_{2p_{rev}}$  which is positive on the side of the terminal 127f and is negative on the side of the terminal 127e is also caused on the secondary winding by back electromotive force  $V_{1_{rev}}$  caused on the primary winding of the transformer 103, however, the level is Zener voltage  $V_{z28}$  of the Zener diode 128a or less and the circuit on the secondary side becomes a non-conducting state by the Zener diode 128a (refer to a mathematical equation 5).

**Page 20, please delete the fifth full paragraph, and replace with the following new paragraph:**

AMENDMENT  
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$$V_{2p_{rev}} = (V_{1_{rev}} \times N_2/N_1) < V_{z28} \quad (5)$$

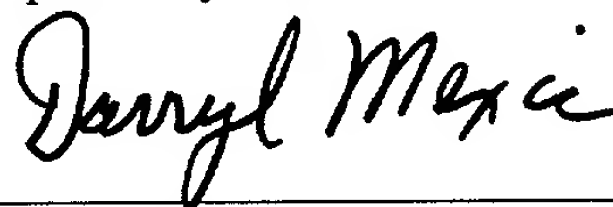
**Page 29, please delete the third full paragraph, and insert the following new paragraph:**

$$V_{2p_{rev}} = (V_{1_{rev}} \times N_2/N_1) < V_{z28} \quad (14)$$

**REMARKS**

Entry and consideration of this Amendment is respectfully requested.

Respectfully submitted,



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Date: June 29, 2001

**APPENDIX**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

**The specification is changed as follows:**

**Page 20, fourth full paragraph:**

a-16: [Back electromotive] Electromotive force  $[V_{2p_{rov}}] \underline{V_{2p_{rev}}}$  which is positive on the side of the terminal 127f and is negative on the side of the terminal 127e is also caused on the secondary winding by back electromotive force  $V_{1_{rev}}$  caused on the primary winding of the transformer 103, however, the level is Zener voltage  $V_{z28}$  of the Zener diode 128a or less and the circuit on the secondary side becomes a non-conducting state by the Zener diode 128a (refer to a mathematical equation 5).

**Page 20, fifth full paragraph:**

$$[V_{2p_{rov}}] \underline{V_{2p_{rev}}} = (V_{1_{rev}} \times N2/N1) < V_{z28} \quad (5)$$

**Page 29, third full paragraph:**

$$[V_{2p_{rov}}] \underline{V_{2p_{rev}}} = (V_{1_{rev}} \times N2/N1) < V_{z28} \quad (14)$$